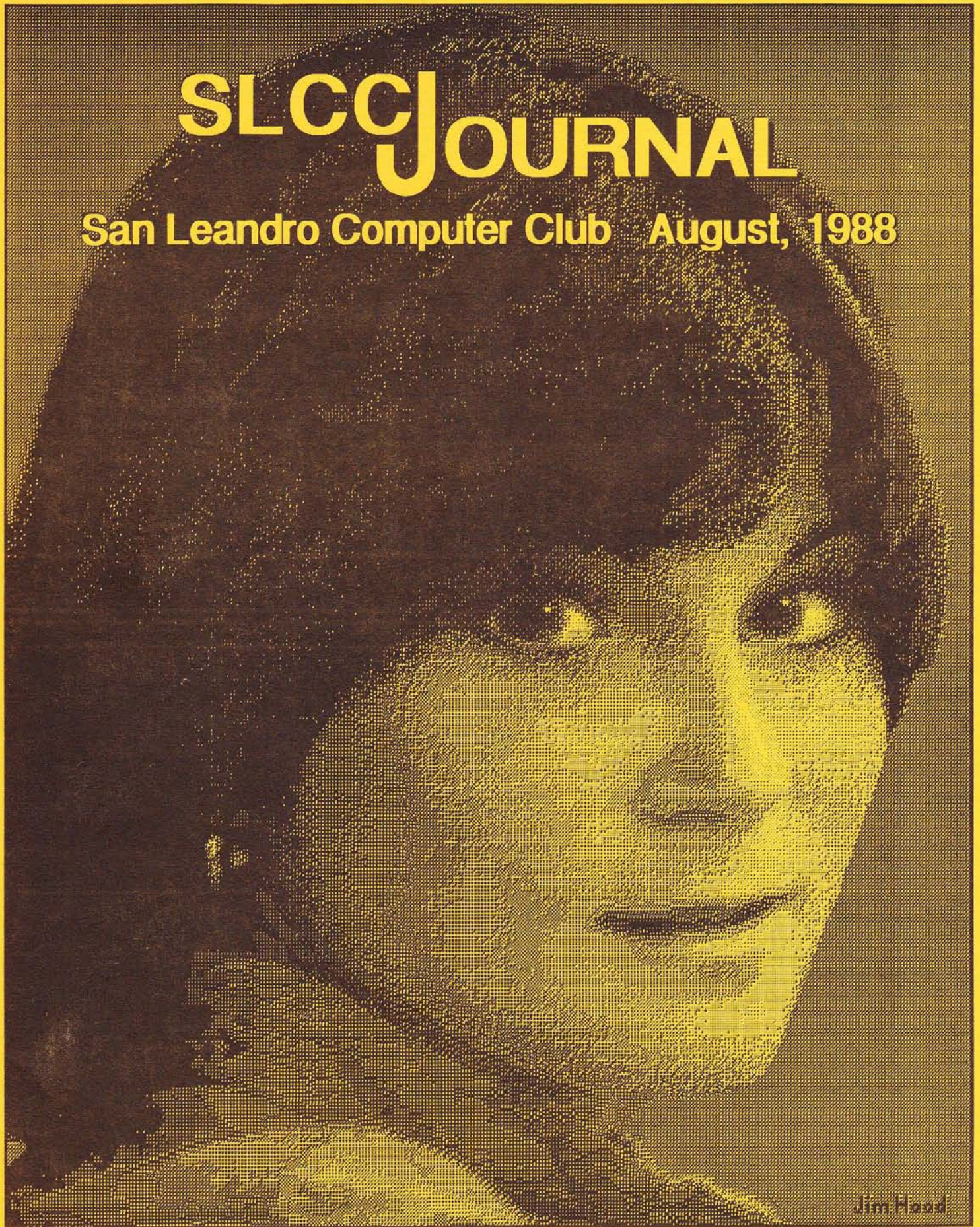


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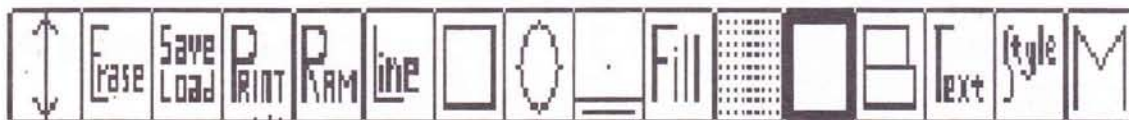
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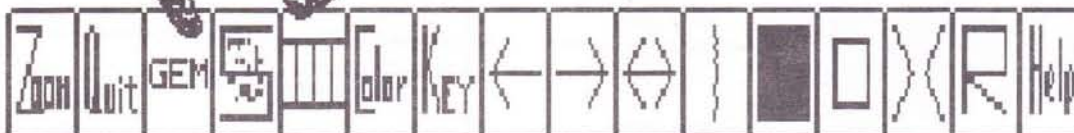
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A CLOSER LOOK AT "R-DRAW"

(A Public Domain Program for Graphics)



Not everyone wants to invest a lot of money in drawing programs like Degas and Easy Draw, but if you want to use Degas and Neo graphics, change them around, add things or whatever, I would highly recommend the Public Domain "R-draw" program by Randy McSorley.

The biggest drawback in the program is the size of the menu that runs across the top—pretty small. However, if you work with it and get familiar with where the various functions are located, perhaps this isn't such a problem. The following are a list of the better than average features it has besides your normal functions including: line, circle and erase. Be sure to read the RAM function—which is actually 3 buffers you can store pictures and parts of pictures in.

(From the R-Draw Documentation)

R-Draw ST Painting System Public Domain by Randy McSorley is a high-resolution painting program which can be used either in medium or high resolution. When you first load R-Draw ST, you will see the MAIN MENU BAR and the title below it. Start the program by moving your mouse.

MOVE MENU BAR (vertical arrows) - The lefthand box allows you to slide the MAIN MENU BAR up and down the workscreen. In this way, the entire screen is useable for your work.

Save/Load - You will be prompted to Save or Load a screen. R-Draw ST pictures are saved and loaded in DEGAS format, and as such are trans- portable between DEGAS or DEGAS ELITE. R-Draw ST, however, does not require any special extender, so if you wish to load an R-Draw ST picture into DEGAS, make sure you give it a ".PI2" or ".PI3" extender.

Print - The Print option will dump the screen to your printer. If you have a non-standard printer, I suggest you use a printer installer utility. I use the "DEGAS Printer

Installer, (c) 1986 - ANTIC Publishing", an accessory written by Tom Hudson and available through START magazine. (Note from ED.-I use the print installer off the Atari Language disk that came with our computer.)

RAM - Three pictures can be saved in RAM disks and loaded back anytime later. Before you make any big changes to your picture, it's a good idea to save them to RAM. Also, the RAM pictures are used in the VIEW TWO program in the GEM area (see below).

Fill - After clicking the Fill box, move the mouse to an area you want to fill with a pattern (or solid color). Click the left button, and the area will be filled. To UNDO the fill, press the right button.

Select Fill - By clicking on the shaded area to the right of the Fill box, you can select a pre-determined fill, or create your own. To select a pre- determined fill pattern, simply click "No" when the alert box asks if you want to create your own fill. The Main Menu Bar will then be replaced with a box filled with the fill pattern. Cycle through the available fill patterns by pressing the left button. When you've found the one you desire, press the right button to return to the Main Menu Bar. From there, you may select the Fill box from the Main Menu Bar to actually fill in an area. If you elect to create your own fill pattern, press "Yes" when the alert box asks if you want to create your own fill pattern. You will be presented with a "Fill Editor" where you can draw a new fill pattern in the grid on the left of the screen. The "Grab" option in the Fill Editor allows you to pick a small part of your painting to use as a fill pattern. Select the box labeled "R-Draw ST" to return to the Main Menu Bar.

Block - The "B" stands for the Block menu. Clicking this box will bring up the Block Menu Bar in place of the Main Menu Bar. The features of the Block Menu Bar are as follows:

Block Mode:

Move Menu Bar - The arrows in this box perform the same

(Continued on next page)

function as the ones in the same position in the Main Menu Bar.

Undo - When you click on this box, all changes you have made to the screen since you entered the Block mode will be undone.

Get Block - Use this function to select an area of the screen to be manipulated as a block. Get Block must be used before you can manipulate an area of the screen with the Block Mode. To Get a Block, select an area of the screen in the same way as you would draw a box. Cut Block, Copy Block, Flip Block are also available (see the longer version of the docs.)

Reverse - Make your block reverse left to right.

Resize - Alter the size of your block.

Mode - This option determines the way Copy Block will put the block on the screen: **AND** - Block and background stay. **NOT** - Block replaces background. **XOR** - If black in the block touches black on the background, white is the result. Can create some interesting effects.

Text - Clicking this box will allow you to place text on the screen. After you have selected this function, move the mouse to where you wish the text to start, and press the left button. A message will appear on the screen telling you to release the mouse. At this point a line will flash from the text's starting point to the right of the screen. When you type, the character will appear. The BACKSPACE and RETURN keys work. To UNDO your text, move the mouse and press the right button.

Style - Clicking on this box will allow you to change the way the text will look on the screen. Click the boxes labeled **BOLD**, **LIGHT**, **ITALIC**, **UNDERLINED**, and **OUTLINED** to change those characteristics. The changes will be reflected where the text says "This is the style you selected". The final box, **SIZE**, determines the size of your text, either 4, 6, 13, or 32. Exit Style and enter the Text Mode by clicking the right button.

Mirror - The "M" in the Main Menu Bar stands for Mirror.

If you click this box, the entire screen will be reversed from left to right. This could prove useful for creating T-shirt designs.

GEM - Clicking on this box will bring up a standard GEM menu bar on the top of the screen, through which you can access accessories. Also in the GEM mode is a program called "View Two", which allows for simple animation by flipping any two of the three RAM pictures. You can also load any RAM picture from disk without loading the color palette.

Spraypaint - The "S" with a fuzz of dots around it represent the Spray Paint function. You will be prompted as to the density of the dots and the size of the brush, and then you may Spraypaint by holding the left button and moving the mouse. Press the right button to UNDO your work.

Hide Menu Bar - The "Bar" within the box represents the Hide Menu Bar function. When you click this, the Main Menu Bar will disappear so that you can see the entire screen. Press the left button again to bring the Main Menu Bar back.

Color - When you press this box, a Color Box will appear. In it, you can select the color you wish to use (0-1 in mono, 0-3 in color). To change a color, select the color you wish to change, press SET, and enter three numbers from 0-7 standing for the Red, Green, and Blue levels that you desire for that color. Return to the Main Menu Bar by pressing MENU.

Key - Pressing this box will allow you to move the mouse to where you want to start drawing, and press a key on the numeric keypad to draw up, down, across, or diagonally. The keys are used logically:

4 6
1 2 3

Press the right button to UNDO your work, or move the mouse to another area to begin using the keypad for drawing again.

Left Move Arrow - Shift the screen to the left.

Right Move Arrow - Shift the screen to the right. Set Move Arrows - Set the number of pixels to be shifted each time you use the Left or Right Move Arrows.

Fuzzy - The fuzzy line represents the Fuzzy function. After clicking on this box, bring the mouse to any area of the screen and press while pointing at a BLACK line. The pixels in the line will become fuzzy.

XOR Box - Selecting this box will let you draw a box similar to the Box function. When the box is drawn, however, everything within it will be reversed (black will turn white, white will turn black). **Box Draw** - This function will allow you to draw a small box around the screen, creating an interesting 3-D effect. **Mirror Draw** - Similar to the Draw function, only this function will draw a left-right mirror image.

Help - Pressing this box will put you in the Help mode. In the Help mode, clicking on any box in the Main Menu Bar will give you a short description of its function. R-Draw ST was written using GFA BASIC from Michtron. Thanks to Michtron and GFA Systemtechnik for providing a terrific, powerful language. Any comments or suggestion concerning R-Draw ST should be sent to R.MCSORLEY on GENIE or directly to:

Randy McSorley
339 S. Maple Street
Kimberly, WI 54136

END

The Atari Hacker

By John Brandt

Reprinted from the July, 1988 A.C.C.O.K.C.

Well, as you can see, I finally came up with a title for my column. Before you get the wrong idea, though, I want to emphasize that I'm using the word 'hacker' in the *traditional* sense; that is, someone who delights in knowing his own computer system inside and out, not someone who delights in breaking through the security systems of large corporate and government computers. (It's unfortunate that the term "hacker" has acquired this second, very different meaning - now you have to define it every time you use it!) Anyway, I think the traditional meaning of hacker describes me and the likely readers of my column pretty well, so I used it in the title.

At the last meeting we introduced yet another DOS for the Atari, SUPERDOS. How many does that make? Let's see: from Atari we have DOS 1, 2.0S, 2.0D, 3, 4, and now ASOS, a total of 7. Most of these were developed by OSS, which gave us three of their own: OS/A+ v.1/2, DOS XL, and OS/A+ v.4. Then there's MYDOS, SmartDOS, SpartaDOS, Top-DOS, and now SUPERDOS, not to mention all the variants of the above by Axlon, Happy, Percom, Indus, etc., and I'm probably still leaving several out. Which one is right for you?

No telling, but the original Atari DOSes are certainly showing their age. DOS 2.0S supports only single density and no RAMdisk at all, and DOS 2.5 only adds support for "enhanced" density and a single 64K RAMdisk. Now days the typical RAMisk is three to four times that size, and a few lucky souls even have megabyte ramdisks.

"Real" disk technology had outdated the Atari DOSes even earlier. Way back in 1981, Atari was planning to market a double-density two-drive system. The Atari 815 never was released, but OSS didn't know that when they were working on DOS 2.0, so they put in the necessary code to support it. Unfortunately, the 815 wasn't very well thought out. It was to have been purely double density - it couldn't handle single-density disks at all, and since the sector size had been doubled, you couldn't even boot from it! I guess it never occurred to Atari that you might not want to buy a \$600 Atari 810 to go with your \$1500 815.

Well, the 815 support lurking in DOS 2.0S was just too much for the market to resist, and so it wasn't long after the 815 was cancelled that someone came up with a drive that was what the 815 should have been. Percom introduced the \$800 RFD drive as "half an 815," but the other half only cost you \$400, so that two RFD's cost the same as two

810's. Also, the RFD supported both single and double density, so you didn't need to buy an 810 to use your RFD. Not only that, but Percom fixed things so you could boot directly from a double-density disk. Finally, the Percom was "configurable," which meant that with a suitable DOS, you could attach double-sided and/or 80-track drives to your Percom, for a capacity of up to 720K per drive!

Note the key words above, "with a suitable DOS." Unfortunately, such a DOS didn't exist at the time. Percom supplied a patch for DOS 2.0S with their drives, which corrected for the differences between it and the 815, as well as software to allow single-drive owners to create double-density disks and copy files to them, but double-density was as far as DOS 2.0S could go. Before Percom could sell any double-sided or 80-track drives, it needed a new DOS. So Percom went to OSS, specs in hand, and bought one. OS/A+ was the result.

The first version of OS/A+ was simply a cleaned-up version of DOS 2.0S which would run Percom's double-density drives smoothly and without patches, and which would wean Atari users away from DOS 2.0S in preparation for later versions. To this end, it dropped DOS 2.0S's big DUP.SYS file, and replaced it with a command-line interface and a set of utilities, a la CP/M. (In fact, OS/A+ was originally called CP/A, but the CP/M people griped.) This was great; it provided instant access to DOS without 2.0S's clumsy MEM.SAV shuffle and, if you only used built-in commands, without losing your program. OS/A+ also came with a disk version of Atari's Assembler/Editor cartridge (which OSS had also written) for no extra charge. It did support double density very nicely, but since it was still good old DOS 2.0S under the hood, so to speak, it still didn't support anything larger.

When OSS finally did introduce their "beyond Atari" DOS, it turned out to have scrapped the Atari file system completely. You see, there's just no way to extend the basic Atari DOS file system beyond a capacity of about 256K. The best that could be done was to be "upward compatible" with Atari DOS; i.e., the new DOS could handle Atari-format disks, but Atari DOS couldn't handle the new DOS's disks. In addition, OSS felt that there were enough drawbacks to the Atari DOS system that it would

be better to sacrifice even

upward compatibility and switch to a completely new file format. So, rather than an upward-compatible version 2 of OS/A+, they released two new versions: version 2, which was fully Atari DOS compatible and therefore didn't support large disk drives, and version 4, which used the new file format and supported disks of unlimited size, but required you to convert all your files to the new format.

The new file format didn't come from scratch, however; it came from Apple. You see, OSS also happened to be the developers of Apple DOS 3.3. They probably would have made Atari DOS compatible with Apple DOS 3.3 to begin with, except that the Apple file format didn't meet Atari's specifications.

One of the most interesting pieces of trivia about OS/A+ is that both it and OSS's expanded version of Atari BASIC, BASIC A+, (yes, OSS wrote Atari BASIC too) were introduced for the Apple as well! If this maneuver had succeeded, it would have brought the Apple file system to Atari users, while at the same time bringing the many advantages of the Atari OS to Apple users. Thus, the two machines could have shared the same file system, OS, and BASIC, making it possible to move programs between machines with only minor changes. But OS/A+ v.4 wasn't a very successful product with either Atari or Apple users. Atari users were understandably not very enthusiastic about going through the chore of converting all their files unless they had to, and they only had to if they had the (expensive) Percom double-sided drives. Few did, so it never caught on. Apple owners weren't too enthusiastic about OS/A+ either. The Atari-like OS held out the promise of new software from the Atari world, but that never materialized. The OS only made software that uses it easy to convert, and most Atari software bypasses the OS and accesses the hardware directly. In fact, the only program which used the OS was BASIC A+, and it wasn't too exciting either. BASIC A+'s biggest advantage over Atari BASIC was support for player-missile graphics, which weren't available on the Apple. And while BASIC A+ is compatible with Atari BASIC, it isn't compatible with either Apple Integer BASIC or Applesoft BASIC. The only thing it offered was the ability to run Atari BASIC and BASIC A+ programs. Big deal. So Atari's only chance for compatibility with a major brand went up in smoke. Sigh.

While all this was going on, though, someone was busy screwing up the works again. Axlon introduced their RAMpower 128 board with RAMdisk software for the one DOS everybody had - you guessed it - DOS 2.0S. The Axlon board had 128K, of which 16K replaced a regular Atari 16K board, 90 K was used as a single-density RAMdisk, and the remaining 22K held DUP.SYS and MEM.SAV so they used neither space on the RAMdisk

nor your time. Trouble was, there was no way to use both the RAMdisk and double-density disk drives at the same time! And then as if things weren't bad enough, Mosaic introduced their own RAM board for the Atari with no software at all! Then the XL's came out with that 16K of RAM under the OS that nobody was using. Was it time for OS/A+ V.3?

Maybe it was, and OSS obliged, but instead of V.3, OS/A+ got a new name: DOS XL. DOS XL offered support for both Mosaic and Axlon RAMdisks right out of the box, and had the ability to load part of itself in that unused 164K of RAM on the 1200XL and 800XL, leaving more of the first 48K for your own programs. It was strictly Atari DOS, however; a DOS XL V.4 was never released. So now you could have your double-density drives and your RAMdisk too but not your double-sided drives.

By this time, it was beginning to look like nobody could get it right. Fortunately, a solution was about to emerge, but from a totally unexpected source: the ATR8000. This was kind of a do-it-all box for the Atari that acted as a controller for just about any disk drive, even 8-inch ones, as well as sporting a serial interface, a printer interface and buffer, and the ability to run CP/M, and, with an optional daughter card, even MS-DOS.

The ATR8000's disk-controlling talents posed problems similar to Percom's systems, but its maker wasn't satisfied with OS/A+ V.4. They went in search of DOS which was upward-compatible with Atari DOS and which would support RAMdisks. They found what they wanted in MYDOS.

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Unlike OS /A+, MYDOS has kept pace with the Atari world. The latest version supports not only the Axlon RAMdisk, but also my 256K upgrade, as well as the spate of XL/XE RAMdisks that have become available recently. It doesn't support Mosaic, however, and in any case RAMdisk support is limited to 256K, despite the fact that real disks of up to 16 megabytes are supported.

Unlike OS/A+, MYDOS retains an Atari DOS-like menu, complete with DUP.SYS and MEM.SAV. when working with single-sided, single or double density disks, it uses the Atari DOS file format. When working with larger disks, it modifies the Atari DOS format slightly by allocating additional VTOC sectors as needed and dropping the file number field from the sector links. This allows MYDOS to handle up to 65,536 sectors (16 megabytes) while still being similar enough to Atari DOS that MYDOS can easily deal with disks of both formats. Thus, converting all your files is not necessary.

Now, obviously a 16 megabyte disk is going to hold quite a few files. Rather than just creating a giant directory for these giant disks, however, MYDOS allows you to create subdirectories. Each individual directory can only contain 64 files, but some of those files can be other directories, which can contain up to 64 files and directories of their own, and so on. Thus, you can have as many files as your disk has room for while still keeping each directory small and easy to search.

MYDOS has a few other interesting features as well. It gives you greater control over disks than most DOSes, allowing you to customize such obscure features as the speed at which the disk head is moved from one track to another.

Is MYDOS the ultimate, then? Not quite. There are still those megabyte RAMdisks that can't handle. If you have a 512K or 1 meg RAMdisk, you might prefer Top-DOS. Here's why: Like MYDOS, Top-DOS drops the file numbers from the sector link fields to allow it to access more than 1023 sectors. However, it doesn't use MYDOS's trick of allocating additional VTOC sectors as needed, so the VTOC size imposes a limitation of 492K. Still, that's large enough to support double-sided (although not 80-track) drives and/or 512K of RAM. (A 492K RAMdisk represents a waste of 4K with an Axlon-type 512K board, or 20K with a 130XE-type 512K upgrade.)

But what about those megabyte RAMdisks? There, Top-DOS falls back on an old technique: partitioning. Instead of having just one huge RAMdisk, Top-DOS can treat your extra RAM as several different RAMdisks. Thus, 1 meg of extra RAM can be treated as, for example, three 336K RAMdisks. The RAMdisks don't have to be all the same size, and Top-DOS can split smaller RAMdisks as well.

After many long years of using DOS XL, Top-DOS is slowly winning me over, primarily because it matches my hardware so perfectly. (I have two double-sided drives and a 512K Axlon-compatible RAM board.) Top-DOS also offers numerous other features, such as command files (it's the only menu-driven DOS I know of which has this feature), support for Happy's "Warp Speed," and is remarkably bug-free.

Of course, Top-DOS isn't perfect. It has the hugest DUP.SYS file I've ever seen. That's no problem if you're using a RAMdisk, but the RAMdisk support takes quite a bit of (conventional) memory. There are also a few silly incompatibilities with Atari DOS; e.g., using a BASIC XIO command to lock *.* only locks the first file on the disk, not all files as it should. Still, for my system, it hasn't been beaten.

We're still not at the ultimate DOS, however, because to get that RAMdisk support, we had to give up support for very large real disk, such as hard disks. For me, "Dream DOS" would probably be MYDOS, with all of Top-DOS's features, and OS/A+'s command line interface to replace those ridiculous DUP.SYS and MEM.SAV files. Unfortunately, Dream DOS only exists in my head.

There are a few other DOSes which deserve at least an honorable mention. Atari DOS 2.5 does a good job of supporting the 1050's "enhanced" density and the stock 130XE RAMdisk. Unfortunately, to keep it small, they took out the double density support while they were adding the RAMdisk and enhanced density support, so it's of little use with anything except stock Atari equipment.

SpartaDOS is a very elaborate DOS which, like OS/A+ V.4, scraps the Atari DOS file system to gain the

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unopened - brand new!! 5 year warranty
retail is over \$1400/pr. -- asking \$800 o.b.o.

Mark - weeknites and evenings
792-0398 or 794-4473

advantages of increased capacity and true random access. Later versions also support Atari DOS sidkettes, so that converting all your files is not necessary. SpartaDOS's biggest problem is just that it seems to have an awful lot of rough edges. The versions that support Atari diskettes won't work on old 400's and 800's, all versions stumble with the double-sided disk drives they're supposed to support. RAMdisk support is limited, compatibility with existing programs is a problem often enough to worry about, and finally, it's a memory hog. I love some of its features, but I just never could get comfortable with it.

SUPERDOS appears to be an appropriate name for the DOS we saw at the last meeting. It has everything most of us need, and is much smaller than, say, Top-DOS. It doesn't support double-sided drives or RAMdisks larger than 256K, and it always looks at a RAMdisk as if it were a real disk of the next smaller density, so that my 800 upgrade, for instance, only gives you a 180K RAMdisk, wasting 60K. Users with an XL or XE and single-sided drives, however, should find SUPERDOS to be a good match to their system.

The last DOS which attempts to boldly go where no Atari DOS has gone before (successfully, anyway; Atari did make a couple of ridiculous forays into the territory of unknown file systems called DOS 3 and DOS 4) is ADOS. I know almost nothing about it, except that it comes with the XF551. Rumor has it, though, that it supports high speed file transfer on Indus (finally!), US Double-enhanced, and Happy-enhanced drives, it can

handle Atari-format disks, and that the file system it uses for double-sided disks is the same system used by IBM PC-DOS (and, not coincidentally, by the Atari ST). If true, this would, of course, allow hassle-free file transfer between the 8-bit and 16-bit worlds, something currently only possible with a Happy 1050. Hope springs eternal.

Certainly all this sounds great, but I can't help but wonder: With all the DOSes out there, why on earth did Atari decide to create another? Wouldn't it have been simpler to obtain the rights to one of the DOSes already available that can handle the XF551, such as Top-DOS, (or SpartaDOS, assuming the annoying bugs were fixed) and make it the new Atari DOS? If ADOS really is PC-DOS compatible, perhaps it's just that Atari was more concerned about easing us 8-bit owners on to the ST. Still, the decision to create yet another DOS certainly leaves everyone else out in the cold. Let's hope ADOS turns out to be the dream DOS everyone seems to be saying and not another DOS 3.

In summary, here's a table which lists the features of the various DOSes described above:

Name of DOS	User Interface	Command Files	File Format	Max Disk	Max RAMdisk	RD type
Atari 2.0S	menu	no	Atari	90K	none	(note 1)
Atari 2.5	menu	no	Atari	130K	64K	XL/XE
OS/A+ v.1&2	command	yes	Atari	180K	none	-
OS/A+ v.4	command	yes	Apple	unlimited	none	-
DOSXL	cmd/menu	yes	Atari	180K	112K	Axlon,Mosaic
SuperDOS	menu	no	Atari	180K	256K	Axlon,XL/XE
SpartaDOS	command	yes	Atari/own	unlimited	192K	XL/XE(note 2)
ADOS	menu	unknown	Atari/IBM	unlimited	unknown	(note 3)
Top-DOS	menu	yes	Atari/own	492K	1024K	any(note 4)
MYDOS	menu	no	Atari/own	unlimited	256K	Axlon,XL/XE

NOTES:

1. Percom software adds support for 180K (double density) drives to DOS 2.0S. Axlon MMS software adds support for a single 90K Axlon RAMdisk. I do not know if they can be used together, but I doubt it.

2. SpartaDOS only supports the stock 130XE 64K RAMdisk, the *original* Buchholz upgrade for the 800XL (the one that appeared in Byte magazine, not the later 130XE compatible version), the RAMBO XL upgrade for the 800 XL (sold by ICD, the makers of SpartaDOS), and the MIO board's RAMdisk (also sold by ICD).

3. I have not seen this DOS yet. I'm not certain about the file format either.

4. This is the only DOS I know of that allows RAM to be partitioned into multiple RAMdisks. RAMdisks are actually limited to 492K, but the partitioning feature allows up to 1024K to be assigned to RAMdisks.

SUPERCARGING Your Hardcopy

by F. Scott Martyn

Reprinted from *Phoenix*,
The Toronto Atari Federation Newsletter
July 1988

My main interest in owning an ST was for desktop publishing. I have also purchased and enjoyed some of the fine animation and paint programs available for the ST but did not consider that these would have any real use in dtp. That is, until I began experimenting with the Easy-Draw Supercharger. As it turns out, the Supercharger has a number of options that will transform color paint program files into a monochrome (black and white) .IMG file.

The .IMG format is used to store bit image information that is later used in printing to a hardcopy black and white device such as a dot matrix or laser printer. The information stored in the file is independent of the screen resolution for purposes of printing. What this means is that you can resize a paint image that has been transformed into an .IMG file without losing any of the pixel information. When called for printing, the computer will attempt to use the .IMG file information at the printer's resolution and only drop information when the file contains more data than the printer is capable of printing.

The real power of the Supercharger is in its ability to transform a color image into a black and white tonal representation. This is analogous to turning off the color settings on a color TV. For those familiar with the printing industry it is similar to producing a half-tone. How it does this is by creating a bit-image matrix for each pixel in the original color image and then assigning that matrix a pattern. The original color will determine which pattern is used in the matrix. Two matrices are available, a 4x4 matrix (16 bits of information per pixel) and a 2x2 matrix. The 4x4 option can be edited, giving you complete control over the color/pattern combinations.

The Supercharger is used independent of Easy-Draw. This is the one sore point in the program in that if your bit-image is not exactly as required you must leave the Easy-Draw program and return to the Supercharger program. Using it, however, is a snap. Once through the manual should alert you to most of the features.

In addition to the mapping options to represent the colors by tonal patterns, there is also the ability to change "all, some, or most" colors to black with the remaining colors changed to white. Also, it allows you to edit the resulting .IMG file and/or crop it.

Once you have created an .IMG file from your color or b/w paint file you may import it directly into Easy-Draw by using the IMAGE option from the tool box. Here you will define the size and shape of the image box and a menu will appear from which you select the .IMG file you created in



HAUNTED

Easy-Draw Supercharger

the Supercharger. Easy-Draw gives you the option of manipulating your bit-image in the same way other objects are sized. There is also a preview option for bit-images, however this is an approximation only, since the printer is capable of printing the image in much higher resolutions than the screen.

For first time users, I suggest that you try out all the options available and print the bit image in a number of sizes to get a feeling for how it's going to work. Some options and sizes will give better results than others and there is no real formula for this apart from trial and error. The examples in this issue were printed on a laser printer at 300 dpi. Dot matrix printers should also work well, but I just haven't had time to test it out.

In summary, this program offers not only the ability to reproduce your color art in black and white but also to create work with this process in mind. Instead of working with 16 colors, you are in reality working with 16 shades of gray. A final note: when a low res picture is remapped using the 4x4 option it becomes a 1280 x 800 resolution b/w image. Since you can edit this file, it is like having a 1280 x 800 pixel monochrome paint program. Suddenly, Degas is starting to take on a more prominent role as a dtp tool.

Now, if I take two .IMG files of the same picture, map them using different pattern combinations and then have my friendly print shop overprint them in different colors...

Dou-tons anyone ?

Mark Your Calenders

The third Annual Northern California Atari Exposition will be held this October 15 and 16 at the Santa Clara Convention Center.

These Expos have provided a central focus on the latest in hardware and software for the full range of Atari computers.

The original Expo, at the San Jose Convention Center, featured the Monster MIDI show, the first sales of the Magic Sac and previewed both Publishing Partner and Dungeon Master.

The second Expo was held in the larger Santa Clara Convention Center, which will also be home for this year's show. Atari displayed some of their first few MEGA and PC compatible computers as well as one of the very few existing SLM 804 laser printers and the 80 column interface for the 8-bit line.

Both shows had talks and panel discussions by leading developers in the Atari community and Atari's management team. Overflowing classes were held throughout each show day for new users.

Software and hardware developers exhibited their latest products on the show floor and some of the area's biggest retailers were there with special buys for show attendees.

This year's show looks like it will be another winner for catching up on the latest in Atari computing. With extensive advertising throughout the Bay area, the largest crowd ever is expected.

The San Leandro Computer Club will be looking for volunteers to help set up before, work during and tear down after the show.

Comgraph'88

Canada's Desktop Publishing Show

by Jim Hood

We don't yet have a list of exhibitors for the coming Northern California Atari Exposition, but we hope that the Atari booth at Comgraph'88 will be a preview of what we might see in the desktop publishing field.

According to Kathy Albert's report in the July, 1988 issue of *Phoenix*, the newsletter of the Toronto Atari Federation, Atari showed several publishing programs at the Toronto show in May.

The programs included *Desktop Publisher ST* from Timeworks, *Deskset* from G.O. Graphics, *Calamus* from ISD Mrketing, *Ostex* from Future DOS and *Publishing Partner Professional* from Soft-Logik Publishing.

Desktop Publisher ST was previewed earlier this year at the SLCC booth during the West Coast Computer Faire. It appeared at that time to have some nice features, including improved screen updating, and should be available now.

Deskset uses Compugraphic scalable outline fonts to print from the Atari laser printer and can be used with a MEGA system to set type on Compugraphic MCS systems. Atari previewed *Deskset* at their annual meeting this year. I don't know whether it is being implemented as a full scale desktop publishing system or as a typesetting program. It has the potential to be a major program if it is done right. It is scheduled to be released this fall.

Calamus was being advertised at the end of 1987 and may finally be showing up here and there. It combines paint and drawing features along with its text manipulations and uses bezier curves in its drawing and font editing routines.

Ostex is a port of TEX, a typesetting system for books and reports, especially those containing lots of math, symbols, tables and graphs.

And then there is *Publishing Partner Professional*...

In Over Their Heads?



SCUBA Easy-Draw Supercharger

Deron Kazmaier and Shawn Fogle had figured on getting *PPP* out this spring and demo'ed it at WCCF. It was to be followed by an Amiga version and then Deron was going to stop and get married on July 22. For whatever reasons, it appears Deron decided to do a complete rewrite and registered owners, who had ordered upgrades finally started getting them in late July. In the tradition of the original *PP*, *VIP*, *WordPerfect*, etc. they didn't work.

The "intentionally blank" pages, in the user manual, and the "Make My Day" dropdown follow in the tradition of *PP*'s "Don't Look" dropdown. I do like that.

Hopefully Brian Sarrazin from Soft-Logik will reassure us at the next General Meeting.

Congratulations and best of luck to Deron and his bride.

Software for the "Little Guys"

8 Bit and 16 Bit



Reprinted from **Fuji Facts** Newsletter, June 1988
Atari Computer Enthusiasts of Columbus, Ohio
Excerpts from an Article by **Michael Steve:**
"Favorite PD Software-Pixie Picks"

(Editor's Note: I think this is 8 Bit)

A few times I have been very happy to find a game or instructional program that the young computer enthusiast can handle. I have to admire the people who have the talent to write such programs, and the good will to enter their work into the public domain. In my opinion, they deserve some recognition.

Adrian's Pick- ABC.BAS

Adrian turned 3 years old in December. He insists on his turn at the computer, and it is really hard to turn him down when he asks for the ABC game. "Picture These ABC's" was written by Bruce N. Willard in 1984.

When this program loads, a menu with all the letters of the alphabet is shown, with a prompt to pick a letter. Each letter of the alphabet has a picture that fills the screen when that letter is pressed on the keyboard. For example, the letter "G" is represented by a row of flowers that grow on the screen. The word "garden" appears at the top, and the first letter is highlighted. To return to the menu, the correct initial letter must be pressed.

To keep the child from becoming bored once all the pictures become familiar, the author has cleverly arranged to have the colors change. I became aware of this effect the third time my son hit the letter "T" and announced, in surprise, that the truck was green now. Nice job, Bruce, wherever you are.

Renata's Pick- MUSFLASH.BAS

This program is a tutorial on the notes of the treble and bass clef. It is written by James W. Brown and appeared in *Antic*, February 1985 (page 66). It is a very friendly approach to learning to read music.

The student decides whether to work in one or both clefs at the same time, and how many notes to be tested on. Then a whole note is plotted on the staff and a countdown begins. When the correct letter is keyed, the note sounds. A false note gets the raspberries.

At the end of the test, a score is displayed, and if you didn't do very well, you are admonished that you aren't

concentrating. Thanks, Jim, just what my nine year old needs, as she is beginning piano.

Reprinted from **CLAUG** Newsletter, June 1988
Chicagoland Atari Users' Group
Excerpts from an Article by **Norm Keller:**
"Ken and Candy's Game Room"

Every day after school and on weekends, my basement computer area becomes a game room for my son, Ken (age 6) and my daughter, Candy (age 4). I have an Atari 800SL and a 2600 game system with which they play the more than 200 games we've accumulated. In this column I will review some of the games and give recommendations from the experts (the kids). All games reviewed will be for the 8-bit systems.

Big Bird's Special Delivery- is a favorite of Candy. It teaches matching and grouping. Three keyboard keys are used for play. It's a one player game for pre-schoolers and has very good graphics with familiar characters. Rating: A

Peanut Butter Panic- is a game both kids like. And, get this-it teaches cooperation. Jump up and catch the stars. after you catch the first three rows, you need to help your partner to catch the others. Ages 5-10. Two players, only with a joystick. Ages 5-10.
Rating: A

Reprinted from the **R.A.C.E** Newsletter
Redding Atari Computer Enthusiasts, ST SIG
Excerpts from an article by **Traci Burton:**
"Educational Software"

The Adventures of Sinbad- Develops vocabulary, reading comprehension and creative writing while learning about Sinbad's adventures.

Treasure Island-An animated adventure game based on the book. Requires map-making skills and critical thinking in order to complete the game. Very entertaining.

Save The Pieces.....

Under the covers of your XF551

By Bob Woolley SLCC

Never being content to leave anything the way I bought it, I wrote a little BASIC program to disassemble the 8040 code in the XF551 ROM. I was interested in connecting a 3.5 inch micro-floppy to the drive (which is a snap) and maybe allowing the controller to run more than one drive (it could run up to four). I also wanted to modify the code to produce an 80 track format (720K) instead of the standard 40 tracks. Finally, a user on Compuserve had asked for a patch to allow the address range to be D5: thru D8: instead of the normal D1: thru D4:. With these goals in mind, I sat down with the listings and muddled my way through to the point where I had the correct 80 track format. Then, it got interesting.

One of the problems with the double-sided feature is that the microcode has to calculate the halfway point for the sectors. Sectors below halfway use head 0, those above use head 1. I had a little trouble following the logic of the program at this point (there weren't a whole lot of comments....) and got the turnover point a little off. This is not immediately evident to the casual observer, so the files near the center of the disk went into the water a lot. Before I got this all squared away, I wrote a little routine to randomly write and read sectors on the disk - just to check out the drive a little. Oddly enough, there were numerous errors not related to the turnover point error. First thing I do on an error is format another disk and retry the operation. It turned out that the format command failed most attempts! I had not spent much time formatting disks on the 3.5 and assumed that it was now failing because of the 80 track changes. Wrong, again.

It took days of experimenting to pry the answer out of that XF551. The original code in the drive is bad. (oh, sure! now we hear about LGMs sending you messages thru your dishwasher?) No, really. I have explain a little about the operation of a disk drive, first.

After not seeing any commands on the SIO for a spell, the controller in your drive turns off the motor to save wear and tear. When a command does show up, and the motor is off, the controller is supposed to start the motor, wait for 5 revolutions of the disk (about 1 second), and then proceed with the operation. You wouldn't want to wait one full second to start every read (100 sectors would take > 100 seconds, no?), so - IF THE MOTOR IS ALREADY ON, THE CONTROLLER PROCEEDS IMMEDIATELY, WITHOUT WAITING FOR THE DRIVE TO COME UP TO SPEED. Look closely at any stock XF551 when it formats a disk. It starts writing immediately - no waiting.

The drive does NOT spin-up before it writes to the first track!

So? How come it seems to work fine? Why does it only fail on the 3.5 inch drives?

This caused much teeth-knashing and colorful language for a time..... The first event that is required to write the first track is the index pulse. This occurs every 200 milliseconds - a fifth of a second. Until that index pulse, nothing is written on the disk, so no harm is done if the drive is not up to proper speed. After that pulse, the speed of the drive has to be correct, or the data cannot be read reliably. It turns out that the 5 1/4 inch drives, with their more powerful spindle motors, can accelerate their disks up to speed 100% faster than the 3.5 inch drives. This means that a 5 1/4 inch drive may reach speed in 50ms, while the 3.5s take 100ms. If the index pulse arrives 1n, say, 180ms, then either drive will be OK. If it arrives in 20ms, then neither drive will format successfully. In fact, a 20ms index will not even register to the controller and will be retried by the microcode. The end result is a rare failure on a 5 1/4 inch drive and a whole lot of grief on a 3.5. This is with new, 100% drives. Imagine a 5 1/4 after a couple of years. Not good.

The problem (in the format code) occurs at \$526. This is supposed to be a wake-up type command to the controller, but instead, kills the spin-up of the next command. Change the existing data (\$23, \$D0, \$90) to \$00, \$00, \$00 and you will now have the proper delay on a format - and they are all successful!

I tried some read/write reliability using this code, and it seems OK. Not that there couldn't be other instances of this bug.....

Other stuff to try:

80 tracks - \$680 from \$28 to \$50 - \$80F from \$30 to \$60 - \$811 from \$FD to \$FA. *** This requires an 80-track drive, of course.

D5:-D8: SIO addressing - \$095 from \$31 to \$35 (\$33 gives you D3: to D6:, etc.)

Minutes

From the July Meeting



JULY 5TH 1988 - GENERAL MEETING

The meeting was called to order by President Barton at 8:15 PM. Roll Call of Officers: Present, Barton, Hood & Moran. Excused, Abbott (work).

ANNOUNCEMENTS,

A used 520ST color system with a Citizen MSP 110 printer for sale - \$675.

NEWSROOM the long awaited 8 Bit desktop publishing program has been released by Springboard. Anyone know of a spell checker for the 8 bit ??

The 8 Bit library will not be here tonight but we will have a FLOPPY which will be demonstrated later.

We have two new ST disks prepared by Jennie Kliever that allow you to make personal stationary with fancy borders. These disks will be available at the ST SIG and next month's regular meeting.

SAN JOSE COMPUTER has closed its Santa Clara store.

CARRIER COMMAND for the ST does not run on a 520 ST without crashing.

DAVID SMALL of Mac Cartridge (Magic Sac) fame has parted company with DATA PACIFIC COMPANY.

New prices for SLCC library disks. 8 Bit disks \$3 each. ST disks still \$4 but now 6 for \$20.

Next month we will auction an ASTRA BIG D disk drive for the 8 bit computers.

The Dynamic Duo (Cliff & Mark) demonstrated this months 8 Bit floppy which contains the usual mixture of the latest software including an excellent digitized sound program, PARROT II.

SPEAKER : MEGA 1 - NAVARONE 0

Program Director, Bob Rasmussen, introduced Vince Martell from NAVARONE INDUSTRIES tonight's guest speaker.

Vince advised the club that the new owners of NAVARONE were in the ST market to stay and the new Scanner they are making is the finest available for the ST. The scheduled Scanner demonstration ran into the new MEGA ROM's and the MEGA won so the demonstration will be put off to a later date. Not to be upset by this minor problem Vince proceeded to explain the workings of the scanner and the other NAVARONE products, the ST VIDEO DIGITIZER, the ST SOUND DIGITIZER and the TIMEKEEPER.

NAVARONE is currently rewriting the software for the scanner and when completed it should support .IMG files, allow more screen editing and hopefully handle MEGA ROM's.

After a lengthy question and answer period Vince closed his demonstration by presenting the club with two of the TIMEKEEPER cartridges for the raffle.

Following a short break, a raffle with the two TIMEKEEPER cartridges, some 8 bit disks and an 8 bit disk box with programs (donation) was held. With the completion of the raffle, the evenings business was finished and the meeting was adjourned at 10:10 PM.

Respectfully Submitted - Jim Moran - Secretary

AUGUST 1988

SLCC CALENDAR OF EVENTS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2 MAIN MEETING 8PM	3	4	5	6
7	8 ST SIG 8PM San Leandro Public Library	9	10 Executive Board Meeting	11	12	13
14	15 Music SIG 7:30PM	16 Telecomm SIG 8PM	17 ST Software SIG 8PM	18	19 JOURNAL DEADLINE	20
21	22	23 Pascal SIG 7PM Business SIG 8PM	24 ST Beginners SIG 7:30PM	25	26	27
28	29	30	31			

Now That It's Plugged In.....

The SLCC has two SIGs (Special Interest Groups) designed to introduce members to the operation of their Atari computers. System set-up, DOS, keyboard functions, and other introductory material is discussed. The ST group meets on the fourth Wednesday of every month, while the 8-bit sessions are scheduled on an as-required basis. Contact the appropriate SIG leader for information and directions.

Sig leaders and their phone numbers are located on page 3.

SoftLogik Corp., the developers of Publishing Partner, will be at the August meeting. This ST program is the main reason an old hard-core, 8-bit hacker like me bought an ST in the first place. I certainly haven't put away my 1200XL, so don't feel threatened by this marvelous piece of software. If you already have an ST, then you need even less incentive to catch this demo. It will be great!

SLCC

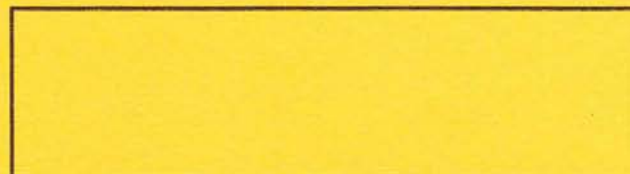
Journal



P.O. Box 1506 San Leandro, Ca. 94577-0374

Next Meeting:

AUGUST 2, 1988
8:00pm



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